FECN11 CWIS 151800

THIRTY DAY FORECAST FOR THE GREAT LAKES FOR MID-DECEMBER TO MID-JANUARY ISSUED BY THE NORTH AMERICAN ICE SERVICE ON 15 DECEMBER 2005.

THE NEXT SCHEDULED BULLETIN WILL BE ISSUED ON 3 JANUARY 2006.

Lake Superior

Below or much below normal temperatures covered the Lake Superior area during the first 15 days of December. The current ice situation is one to two weeks earlier than normal in terms of freeze-up.

Forecast ice conditions from December 15th to December 31st.

Temperatures will be below normal for the third week and become near or above normal for the last week of December.

- Thunder Bay Some new lake ice will begin to form during the third week of December. Early in the fourth week most of the bay will be covered with thin and medium lake ice. Some narrow bands of consolidated thin and medium lake ice will form especially in the north-eastern portion of the bay.
- 2. Nipigon and Black Bays The consolidated ice in the northern reaches of the bays will continue to spread southward during the period. By the end of third week of December, both bays will be covered with consolidated thick lake ice.
- 3. From Grand Marais to the entrance to Nipigon Bay A few patches of new lake ice will form during third week of December. By the end of the month a narrow band of new and thin lake ice 2 to 5 miles wide will spread from the shore towards lie Royale.
- 4. From Grand Marais to Duluth Mainly open water with a few patches of new lake ice
- 5. Southern Lake Superior west of Keweenaw Peninsula Some new lake ice will begin to form near Duluth and around the Apostle Islands during the third week of December. The ice will thicken to thin and medium lake ice and spread to cover the entire approaches to Duluth as well as most of the area around the Apostle Islands by the end of December. Some areas of consolidated ice will form near Duluth and around the Apostle Islands during the last days of the month. Some patches of new and thin lake ice will begin to form elsewhere along the coast.
- 6. Southern Lake Superior east of the Keweenaw Peninsula Mainly open water conditions will prevail during the third week. During the fourth week of December, areas of thin and new lake ice will form.
- 7. Whitefish Bay Areas of new and thin lake ice will continue to form in the smaller bays during the third week. The coastal area of the bay will be covered with thin and new lake ice at the end of the third week and spread to cover most of the bay except for the entrance to the bay by the end of December.
- 8. From Whitefish Bay northwards to Michipicoten Bay Mainly open water will prevail during the third week of December. However during the last week of the month some new and thin lake ice will form in Michipicoten Bay.
- 9. From Michipicoten Bay to the entrance to Nipigon Bay Mainly open water.
- 10. Elsewhere in Lake Superior Open water to ice free.

Forecast ice conditions from January 1st to January 15th.

Temperatures will be near to above normal over the entire area.

- 1. Thunder Bay The ice will continue to thicken during the period. By the middle of January, most of Thunder Bay will be consolidated with medium thick lake ice except the entrance to the bay where mobile thin and medium lake ice will prevail.
- 2. Nipigon and Black Bays Consolidated thick lake ice.
- 3. From Grand Marais to the entrance to Nipigon Bay During the period, the ice edge will continue to expand south-eastward and reach lle Royale by the middle of January. As well some new lake ice will form along the south-eastern shore of lle Royale. Elsewhere, the thin with some medium lake ice will extend about 6 to 12 miles from the shore.
- 4. From Grand Marais to Duluth a band of new and thin lake ice will form during the second week of January and spread away from the shore by about 3 to 7 miles by the middle of the January.
- 5. Southern Lake Superior west of the Keweenaw Peninsula The consolidated ice around the Apostle Islands will continue to expand around the Apostle Islands as well as Duluth during the first two weeks of January. The ice edge will move offshore to reach about 5 to 12 miles by the middle of January. At the same time most of the Apostle Islands will be encased in consolidated thick lake ice.
- 6. Southern Lake Superior east of Keweenaw Peninsula The new and thin ice will continue to form along the shore and extend to about 5 to 10 miles from the shore by mid-month. The ice will be mostly thin and medium lake ice at that time.
- 7. Whitefish Bay All of Whitefish Bay will be covered with thin and new lake ice after the first week of January. Some consolidated ice will be present in the smaller bays. At mid-month, the ice will have thickened to thin and medium lake ice
- 8. From Whitefish Bay to Michipicoten Bay New and thin lake ice will continue to form along the shore so that by mid-January the thin and new lake ice will extend about 5 to 12 miles from the shore
- 9. From Michipicoten Bay to the entrance to Nipigon Bay Some patches of new and thin lake ice will form along the shore mostly during the second week of January.
- 10. Elsewhere in Lake Superior Open water to ice free.

Lake Michigan

Much below normal temperature were observed over the first half of December. Ice conditions in the lake are about two weeks earlier than normal in terms of ice formation

Forecast ice conditions from December 15th to December 31st.

Temperatures will be below normal during the third week and rise to near or above normal for the last week of December.

1. Green Bay – The new and thin lake ice in southern Green Bay will continue to spread northwards during the last week of December and thicken to thin with some medium lake ice. The southern portion of the bay will be consolidated with medium lake ice while most of the rest of the bay will be covered with medium and thin lake ice. Thin and new with some medium lake ice will continue to form in the Little and Big Bay de Noc and become consolidated to medium lake ice during the last week of December.

- 2. Northeastern Lake Michigan Some new and thin lake ice will begin to form near the entrance to the Straits of Mackinaw during the third week of December. By the end of the month the northeastern section northeast of Beaver Island will be covered with thin and new lake ice.
- 3. Elsewhere in Lake Michigan Mostly Ice free with open water near the shore except for some patches of new and thin lake ice along the western and southern shore of the lake.

Forecast ice conditions from January 1st to January 15th.

Temperatures will be near to below normal over the area.

- 1. Green Bay During the first week of January, the consolidated ice in the southern portion of Green Bay will continue to extend northward to cover most of the bay except for the mobile medium and thick lake ice at the entrance. The consolidated ice will be thick lake ice around January 15th. The consolidated in the Little and Big Bay de Noc will thicken to thick lake ice at mid-month.
- 2. Northern Lake Michigan The ice in the northeastern portion of the lake will continue to expand southward and be located about 5 to 10 miles south of Beaver Island by the middle of January. Areas of consolidated ice will form near the shore northwest of the Straits of Mackinaw as well as in the straits.
- 3. Elsewhere in Lake Michigan The coastal area of the lake will have some patches of new and thin lake ice within 4 to 8 miles of the shore mostly along the western, southern and northeastern shore of the lake by mid-month. Beyond the ice edge and shore mostly open water will prevail with the central portion of the lake being ice free.

Lake Huron and Georgian Bay

Temperatures were below or much below during the first half of December. Ice conditions are generally two week earlier than normal for the freeze-up period.

Forecast ice conditions from December 15th to December 31st.

Temperatures will be below normal for the third week of December however will be rising to near normal for the last week of the month.

- North Channel The new and thin lake ice will continue to expand from the eastern northern and western section of the channel. During the last week of December, all of the channel will be covered with thin and medium lake ice. Consolidated ice will from in the eastern and western portion of the channel during the last week of the month.
- St Mary's River Some ice and medium lake ice has begun to from on the river. By the end of the third week, most of the river will be covered with new and thin lake ice. All of the river will be consolidated with medium and thick lake ice by the end of the month.
- 3. South of Manitoulin Island westward to North-western Lake Huron Mainly open water, however some new and thin lake ice will begin to form along the shore during the end of the third week of December.
- 4. North-western Lake Huron near the Straits of Mackinaw Open water with some patches of new ice forming along the shore during the third week of December. By

- the end of the month, the thin with some medium lake ice will extend to about 3 to 6 miles from the shore and the entrance to the Straits of Mackinaw.
- 5. From north-western Lake Huron to Saginaw Bay Mainly open water with some new and thin lake ice forming especially from Thunder Bay southwards to Saginaw Bay during the last week of December.
- 6. Saginaw Bay Thin and medium lake ice will cover the entire bay. By the end of the month, the ice will thicken and consolidate to medium lake ice.
- 7. The southern and eastern shore of Lake Huron Mostly open water except for some bands of new and thin lake ice by the end of the month along the southern and eastern shore.
- 8. Georgian Bay New lake ice has begun to form along the north-eastern shore of the bay. The band of ice along the northeast shore will continue to expand and thicken to thin and medium lake ice by the end of the month. The ice will extend about 10 to 15 miles from the coast. Some of the smaller bays will become consolidated with medium lake ice by the end of the month. Some patches of new and thin lake ice will form in the southern portion of the bay during the last week of December.
- 9. Elsewhere in Lake Huron Open water along the shore or ice edge and ice free in central Lake Huron and the south-western portion of Georgian Bay.

Forecast ice conditions from January 1st to January 15th.

Temperatures will be near to below normal for the entire area.

- North Channel The consolidated medium and thick ice will continue to expand so that
 by the middle of the month of January only the south-central portion of the channel will
 be covered with mobile medium and thick lake ice. As well the consolidated ice will be
 mostly medium lake ice with some thick lake ice at that time.
- 2. St Mary's River Consolidated with medium and thick lake ice.
- 3. South of Manitoulin Island westward to North-western Lake Huron new and thin lake ice will continue to expand and thicken to thin and medium by mid-month. At that time, the ice will extend to about 6 to 12 miles from the shore.
- 4. North-western Lake Huron near the Straits of Mackinaw the ice along the shore will continue to spread and reach Bois Blanc Island by the middle of January. Some consolidated medium lake ice will form along the shore and in the Straits of Mackinaw.
- 5. From north-western Lake Huron to Saginaw Bay Thin lake ice will continue to form along the shore and spread to reach about 4 to 10 miles from the shore by mid-January.
- 6. Saginaw Bay By the end of the first week of January, all of Saginaw Bay will be consolidated with medium and thick lake ice.
- 7. The southern and eastern shore of Lake Huron new and thin lake ice growth will begin along the southern shore south of Saginaw Bay during the first week of January. In the meantime, ice along the eastern shore will continue to expand. By mid-month, the ice will extend about 5 to 12 miles off-shore with the thicker and higher concentration located along the south-eastern shore. Mostly medium and thick lake ice will be present along the eastern shore while thin and new will cover the western shore south of Saginaw Bay.
- 8. Georgian Bay Ice growth will continue as the ice edge extends south-westward. By mid-January the ice will extend about 12 to 20 miles from the shore. The ice will be medium and thick lake ice except for the south-western portion where mostly open water with some thin and new lake ice will be present
- 9. Elsewhere in Lake Huron and Georgian Bay Open water to ice free.

Lake Erie and Lake St. Clair

Much below or very much below normal temperatures were observed over the region during the first two weeks of December. Ice conditions are about three weeks earlier than normal in terms of freeze-up.

Forecast ice conditions from December 15th to December 31st.

Temperatures will be below or much below normal during the third week of December but will moderate to near or below normal for the last week of the month.

- 1. Lake St Clair and the Western Basin All of Lake St Clair and the Western Basin are covered with new and thin lake ice. The ice will continue to thicken to thin lake ice with some medium lake ice by the end of the month. Some consolidated thin and medium lake ice will form in the south-eastern portion of Lake St Clair as well as the coastal area of the Western Basin during the last week of the year.
- 2. The rest of Lake Erie Ice from the Western Basin will continue to spill into the western portion of the lake. Some new and thin lake ice will begin to form along the shore. Consolidated thin and medium lake ice will form in Long Point Bay and Sandusky Bay by the fourth week.

Forecast ice conditions from January 1st to January 15th.

Temperatures will be near to below normal for the first two weeks of January.

- 1. Lake St Clair and the Western Basin Consolidated medium lake ice will continue to spread in Lake St Clair so that by the middle of January most of the lake will be covered with consolidated ice. The ice in the Western Basin will thicken to medium lake ice by mid-month.
- 2. The rest of Lake Erie During the first week if January, coastal new and thin lake ice will form and quickly spread towards the middle of the lake. By the middle of January, most of the lake will be covered with thin and medium lake ice except for the east-central portion of the lake where mostly open water will prevail with a few patches of new and thin lake ice.

Lake Ontario

Temperatures were below normal over the lake during the past two weeks. The Bay of Quinte was covered with new and thin lake ice. Conditions are about two weeks earlier than normal.

Forecast ice conditions from December 15th to December 31st.

Temperatures will be below normal during the last two weeks of December.

1. Northeastern Lake Ontario – Some patches of new ice will continue to form in the smaller bays during the last two weeks of December.

- 2. Bay of Quinte The new and thin lake ice in the bay will become consolidated during the last week of December.
- 3. St Lawrence River New and thin lake ice will continue to form during the last two weeks of December. The area will become consolidated with thin and medium lake ice by the end of the month.
- 4. Elsewhere in Lake Ontario Ice free with open water near the shore. Occasional patches of new ice will form mostly around the coastal area of Prince Edward County.

Forecast ice conditions from January 1st to January 15th.

Temperatures will be near to below normal for the first half of April.

- 1. Northeastern Lake Ontario The ice will continue to grow and spread during the first half of January. By the middle of January, the northeastern portion of the lake from the southeastern tip of Prince Edward County south-eastward to just east of Oswego will be covered with thin lake ice. The coastal area of Prince Edward County will be covered with a narrow band of new and thin lake ice.
- 2. Bay of Quinte Consolidated medium and thick lake ice at mid-month.
- 3. St Lawrence River Consolidated medium and thick lake ice at mid-month.
- 4. Elsewhere in Lake Ontario Some patches of new and thin lake ice will form within 1 to 4 miles of the shore during the period. Further off-shore, conditions will be mostly open water with ice free in the central portion of the lake.

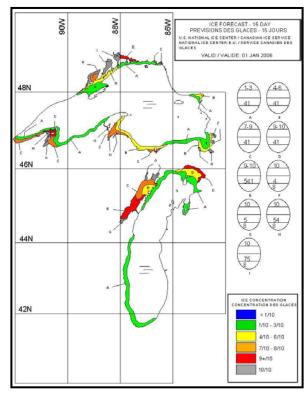


Figure 1: Ice forecast, Western Great Lakes - 1 January 2006

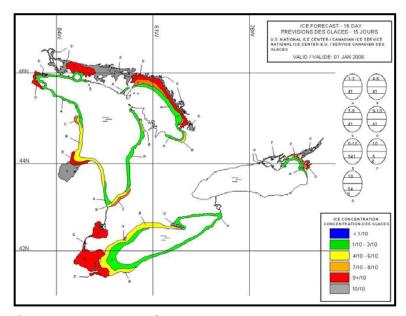


Figure 2: Ice forecast, Eastern Great Lakes - 1 January 2006

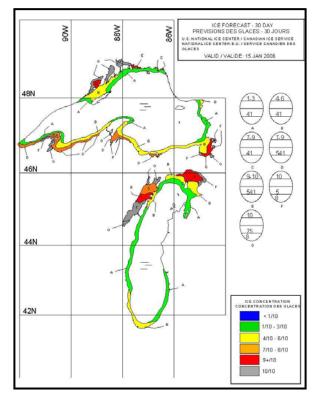


Figure 3: Ice forecast, Western Great Lakes - 15 January 2006

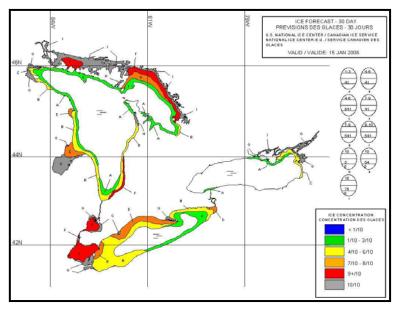


Figure 4: Ice forecast, Eastern Great Lakes - 15 January 2006

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